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This study was designed to determine whether junior college freshmen demonstrate heterogeneity or homogeneity along certain personality dimensions. The subjects were 259 students enrolled in their first semester at California junior college. The two personality measures administered were the Adaptive-Flexibility Inventory, to measure the degree of ego strength of the respondent, and the Omnibus Personality Inventory, to assess certain characteristics of human behavior in areas of normal ego functioning and intellectual activity. Homogeneity was found on the measure of Adaptive-Flexibility--subjects scored more in the middle range on this measure than populations of normally functioning adults who had taken the test in earlier studies. On the Omnibus Personality Inventory, the patterns of response showed high impulse expression and low cognitive orientation. Standard deviations of mean scores on this instrument were lower than those of comparison groups. Generally, the kinds of data obtained from this investigation do not suggest the quality of heterogeneity usually ascribed to junior college students. Further research is suggested to determine the degree of heterogeneity or homogeneity, and on what variables. If the homogeneity found in this study is substantiated in future studies, it would show that junior colleges do not attract extremes, but rather a large number of students from a fairly homogeneous population. (HH)

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HETEROGENEITY AND HOMOGENEITY:

PERSONALITY CHARACTERISTICS OF JUNIOR COLLEGE FRESHMEN

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It has been rather common practice to describe the community college as an institution heterogeneous in comparison to four-year colleges and universities. This diversity relates to the variety of courses and curricula offered and to the people who are involved in the system. By implication, the college that enrolls large numbers of "transfer", "vocational", and "remedial" students drawn from local communities serves a mixed population composed of a variety of types of individuals. Similarly, junior college students have been characterized as being heterogeneous on measures of academic ability, aspiration, and socioeconomic status.

Descriptions of heterogeneity or homogeneity, however, are meaningful only if the exact components are spelled out. Which dimensions comprise diversity? Which uniformity? Most studies of community college students examine their grade point averages, measures of general ability, their ages, and the miles they travel to school. Certainly the students vary greatly along these dimensions. But such data do not indicate that the ascribed diversity is actually a general quality. In spite of apparent heterogeneity on demographic dimensions, little is known about relative heterogeneity among students on other measures.

Some doubt has been cast on the generality of diversity among junior college student populations. Cross (1968) suggested that "Research on the junior college student is a new phenomenon" and consequently, the traditional measures used to describe college students do not actually fit the junior college population. Junior college students generally achieve a lower mean score on tests of academic ability than do comparably selected samples so four-year college and university students. They indicate lower educational and occupational aspirations and show less confidence in their academic abilities than four-year college students. However, the data do not indicate a tendency toward great diversity within the population along those dimensions.

Medsker and Trent (1968), for example, found tendencies toward heterogeneity in academic ability and socioeconomic status and toward homogeneity on personality characteristics appraised by the Omnibus Personality Inventory.

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Warren (1966) found that his sample of junior college men and women fell below the sample of the students attending either a state college or private college on all personality measures examined. Students at the private college were the most adventuresome, impulsive and involved; junior college students were described as being the most apprehensive and rigid in concerns over academic standings and most "cautious, prudent and controlled". However, a relative degree of heterogeneity was not apparent in his data.

Examinations of junior college students do not, then, appear to support a general description of heterogeneity although the concept may accurately apply to such demographic dimensions as age, previous academic achievements, and educational aspirations. Just as the "highly diversified" nature of students in four-year institutions does not yield a "typical" portrait (Sanford, 1967), an accurate picture cannot yet be drawn of the "typical" community college student. The question of heterogeneity versus homogeneity continues to be an intriguing issue because of its implications for understanding students in this segment of higher education.

This study was designed to assess relative heterogeneity of community college students as compared to four-year college students on specific measures of personality. The general hypothesis was that junior college students would exhibit less heterogeneity on the scales administered than would comparison groups of four-year college students.

Method

Subjects

The subjects of this study were students in a California community junior college of 8500 students, one of several colleges in a large city district. The college offers post-high school curricula including general, vocational and lower division college programs. Of the 259 entering freshmen included in the sample, there were 175 men and 74 women (10 did not designate). Their ages ranged from 17 to 30, with a mean and median of 18 years.

Approximately equal numbers of the total population were enrolled in each of three introductory English courses, one class from each of twenty instructors in the English department. However, because testing occurred over two class periods and because students may not have attended both the first and second class sessions, the total population of 259 did not respond to both instruments.

Instruments

Two personality measures were administered.

1) The Omnibus Personality Inventory (OPI), Form F-X (Center, 1962) is an attitudinal inventory consisting of 390 statements arranged into fourteen scales. Developed by the Research and Development Center for the Study of Higher Education at the University of California, Berkeley, for college populations, the inventory is now published for more general use (Psych Corp. 1968).

The fourteen scales are constructed to assess certain characteristics of human behavior falling within the areas of normal ego functioning and intellectual activity. Scales include Thinking Introversion (TI), Theoretical Orientation (TO), Estheticism (Es), Complexity (Co), Autonomy (Au), Religious Orientation (RO), Social Extroversion (SE), Impulse Expression (IE), Personal Integration (PI), Anxiety Level (AL), Altruism (Am), Practical Orientation (PO), Interest Orientation (IO), and Response Bias (RB). According to the manual, respondents high in TI like abstract, reflective thought and are interested in academic activities. Those who are high in TO tend to be theoretically oriented and enjoy abstract thought while high Es respondents are interested in artistic activities and are highly sensitive to aesthetic stimulation. High Co scorers reflect flexible and experimental orientations, and appreciate ambiguous, novel situations and ideas. Liberal, non-authoritarian thinking and needs for independence are seen in high Au scorers, while skepticism and frequently, rejection of conventional religious beliefs, characterize those individuals who score high on the RO scale.

High SE scorers prefer to relate to people in a social context; high IE's exhibit a general readiness to seek early gratification for impulses. Individuals high in PI do not admit to feelings of being misunderstood by others nor do they experience barriers between themselves and others. Respondents who score high on the AL scale deny anxiety symptoms, worry and nervousness. People scoring high on AM tend to be affiliative and trusting in their personal relations, demonstrating strong concerns for the welfare of others. A high PO score suggests a person who takes a utilitarian approach to ideas. High scorers on the IO scale tend to deny asthetic interests, emotionality and sensitivity, prefer scientific matters and admit to few adjustment problems. The RB scale measures the test-taking attitudes of respondents; high scorers respond similarly to a group of students who were explicitly asked to answer items in order to make a good impression.

2) The Adaptive Flexibility Inventory, (A-F) Form B-2 (Brawer, 1967) is a 180-item word association scale, developed as a research instrument to measure the degree of ego strength possessed by the respondent. Ego strength is operationally defined as a concept which refers to the various functions of the ego in its relationships to both outer reality and inner forces. It represents a composite of several dimensions, any or all of which may be present to varying degrees, and it can be demonstrated in the measures of adaptive-flexibility that are exhibited.

Individuals responding to this instrument are evaluated globally according to a 7-point scale: a score of one indicates so low a degree of ego strength that the individual appears to be severely disturbed and functioning only minimally. A score of two suggests a borderline individual who demonstrates low ego-functioning because of either below-average intellectual ability or interfering emotional problems. Threes, fours and fives represent the so-called average population, while sixes and sevens are especially reality-oriented, well-functioning, occasionally creative and usually very intelligent people.

Procedure

Selection of students to participate in the study was made on the basis of their presence in English classes on the first or second class day of the spring semester, 1968. English classes were chosen because most entering

freshmen enroll in them. One introductory English class was selected from each of the twenty instructors so that students at different levels of competence (as measured by the Cooperative English Test and a writing sample) were included. English 1, a university transfer course, demands scores of 56 or better on the Cooperative English Test; English 21, a course designed to prepare students for English 1, requires test scores between 45 and 55; English 30, a sub-remedial course is comprised of students who achieve test scores between 27 and 44. The writing sample is used to assign students into a higher or lower class when their scores on the test ar close to the borderline between two categories. In all, eight English 1, five English 21 and nine English 30 classes were tested.

The A-F Inventory was administered during the first hour in which the classes met; the OPI was given during the second hour. Both instruments were administered by the instructors according to written directions. The OPI's were scored as directed in the manual; A-F Inventories were evaluated by the developer of the instrument.

Results

Results are reported in Figures 1 through 4. Figure 1 compares scores obtained by the subject population on the OPI with the college norm group reported in the manual, and with a group of University of California, Berkeley freshmen. Means and standard deviations for all groups are shown.

Figure 2 depicts the quartile ranges for the subject population as compared to the norm group. Figure 3 compares quartile ranges for the subject population as compared to the university freshmen. Figure 4 shows the scores on the A-F Inventory as compared to a postulated normal distribution on that instrument.

The contention of less heterogeneity for the junior college students was supported by results on both instruments as evidenced by the following:

1) Standard deviations for the scores obtained by the subject population were lower than either of the comparison groups on 13 of the 14 scales of the OPI.
2) A very narrow spread in the second and third quartiles on the OPI was revealed.
3) The A-F Inventory results could not be compared to an undergraduate four-year college population because such data were lacking. However, the tendency was in the direction of homogeneity as compared to a postualted normal distribution of scores on that instrument.

Discussion

The results of the investigation suggest that diversity in academic ability and aspiration are not necessarily matched by heterogeneity in personality characteristics of junior college students. The data drawn from both the OPI and the A-F Inventory may be interpreted as placing students in characteristic types that question the picture of heterogeneity so frequently drawn. For example, when the subjects of the study were compared with the University of California freshmen sample and with the normative samples, the means differed significantly on most of the scales.

Sets of scores that showed significant discrepancy between the junior college student and the normative sample were Thinking Introversion, Theoretical Orientation, Aestheticism, Religious Orientation, Social Extroversion, Impulse Expression, Personal Integration, Altruism, and Response Bias. With the exception of Religious Orientation and Impulse Expression, all scales were significantly lower for the junior college population than the means of the normative group ($P=<.01$). Religious Orientation and Impulse Expression were significantly higher than the mean for the normative sample ($P=<.05$ and $<.01$ respectively).

When compared with University of California freshmen, the junior college group was also significantly lower ($P=<.01$) on dimensions of Thinking Introversion and Theoretical Orientation. Aestheticism was not significantly different for the University of California freshmen and the junior college freshmen but complexity, another scale in the cognitive domain was significantly higher for the junior college population ($P=<.05$). Compared with the University of California freshmen, who were considerably higher than the more general norm group on the Autonomy Scale, the junior college sample was significantly lower ($P=<.01$).

The high Impulse Expression scores among the subject population may corroborate the low Thinking Introversion, Theoretical Orientation, and Aesthetic scores in the sense that subjects tended to prefer to "act out" their impulses rather than to think about them or to cope with them through non-academic channels. The low Altruism and low Personal Integration may also relate to the high Impulse Expression score since it is conceivable that both scales reflect responses of individuals who prefer not to delay gratification, have not yet developed a "life style" of their own, and who tend to be concerned with self rather than with others.

These results may also suggest a reason why the subjects are enrolled in a junior college rather than in a state college or a university. Their low high school grade point averages (Table 1) suggests that about 80 percent of the students would not be academically eligible for admission to a four-year public institution in California. Low scores on the OPI scales that are described as representing the cognitive domain -- Thinking Introversion, Theoretical Orientation, Aestheticism -- suggest that the students are not oriented towards an interest in academic ideas; their failure to hold such tendencies may account for their lack of achievement in secondary school.

Because the Response Bias Scale reflects a tendency toward "making a good impression", the general low scores on the Response Bias Scale (three-fourths of the subjects were below the means of both the norm group and the University of California, Berkeley freshmen) suggest that the responses to the total instrument were valid. However, of 259 subjects taking the OPI, only 125 completed the inventory in the class hour allotted. Normally, freshmen complete the instrument in forty-five minutes (Pullen, 1968) but fifty minutes was sufficient for fewer than half the junior college students. This failure to complete all items may suggest unintentional bias in the results.

Another test to assess the degree of homogeneity of distribution -- the coefficient of variation -- was run. With coefficient of variation as a

measure of comparison, the junior college sample was more homogeneous than the norm group on five scales: Complexity, Autonomy, Religious Orientation, Impulse Expression, and Practical Orientation. On none of the scales did the junior college sample have a substantially higher C-V or show greater heterogeneity than the norm group. Compared to the UCB freshmen sample, the subjects showed more homogeneity on the Complexity, Religious Orientation, Impulse Expression, and Practical Orientation Scales. In none of the remaining scales did the subjects show substantially greater heterogeneity than the UCB freshmen sample.

In designing the A-F Inventory, it was hypothesized that approximately 70 percent of the so-called "normal" adult population would score in the middle range -- that is, they would manifest low average, average or high average adaptability and flexibility (scores of 3, 4 or 5). Responses to the inventory again supported the general hypothesis; 80 percent of the subjects fell within the middle range. The curve was slightly skewed toward the low end and was leptokurtic; 96 of the sample of 246 (39 percent) in the group were assessed as 5's (Figure 4). Thus, only a few of the subjects fell at the extremes.

Incidental findings revealed other dimensions of the group examined in this study. For example, it is conceivable that the subset of subjects who completed the OPI represents two extremes, those who were able to reach the necessary decisions regarding the inventory items quickly and easily and those who merely answered casually without serious consideration of how accurately their responses reflected their actual feelings. The group which did not complete the instrument, then, would include those who required more time to deliberate was well as those who conceivably might have been uncooperative.

Some interpreter reactions to the protocols were recorded during the scoring of the A-F Inventory and these provide a different picture of the subjects from that obtained in the statistical analyses of the data. Several students perseverated (used the same word repeatedly) considerably on certain words. Preoccupation with sex seemed apparent in certain perseverated responses as well as in other complex-bound reactions to the stimuli. In some cases, this preoccupation went well beyond what one would normally expect of young people. Several other protocols had a decided "personal" oriented slant, their respondents offering word reactions that suggested exaggerated preoccupation with self.

On the other hand, many of the A-F's contained accurate responses to difficult words and, occasionally, vivid imagery. Although there was also some fairly obvious guessing when a subject was confronted with intellectually difficult words, the "good" responses suggested that many students could get away from themselves and their particular problems and deal with the stimulus words in an intelligent, sometimes creative, manner.

Many subjects appeared to be flexible and open to different ways of associating toward stimuli. However, they often lacked the basic fundamentals of language or, perhaps, were unable to combine awareness of difficult words with their ability to be flexible. While the A-F inventory was not designed to assess intelligence levels or cognitive development, respondents did indicate varying degrees of competence in these areas. One general, rather glaring finding was that a great many subjects simply could not spell correctly. Another was the fact that the OPI picked up the subjects' tendencies to "act out"

their impulses. Such tendencies might, on the surface, tend to corroborate the junior college students' lack of previous academic achievement. Impulse expression is not a characteristic that is rewarded in most public schools.

If junior college freshmen are actually less heterogeneous along certain dimensions than they are generally assumed to be, there are distinct implications for counseling and instruction in these schools. If the students are generally low in academic ability, high in impulse expression and lacking in clear and consistent goals, they may need more time to make choices. A junior college counseling service then, should not be arranged so that students are pressured into early choices of "major." Forced choices of "majors" or "transfer" institutions do not well serve the student who is not yet prepared to choose an academic or career path and who may need time in which he can be allowed "to be."

Perhaps the most general statement that can be made regarding the results of this investigation is that the kinds of data obtained do not suggest the quality of heterogeneity usually ascribed to junior college students. The questions relating to homogeneity and heterogeneity that were raised earlier can only be resolved by further questions: how homogeneous and how heterogeneous? And on what variables: On what bases are junior college freshmen like other college freshmen? How do they differ? What are the ranges of differences in any particular sample? Is this range matched in other junior college populations? The questions, of course, cannot be answered on the basis of one study in one school, but the data do point toward several dimensions of homogeneity among the junior college freshmen examined in this project. On the A-F Inventory, 87% of the population were placed into the middle range scores of 3, 4 and 5. If this finding is substantiated by repeated results of a similar nature, it may indicate that junior colleges tend not to attract extremes but rather, a large number of students from a somewhat homogeneous population. On the OPI scales, which purport to assess cognitive dimensions, this sample of junior college freshmen was low on TI, TO and ES, thus suggesting that tendencies to do poorly in school are also evident in responses to personality inventories.

SUMMARY

The Adaptive-Flexibility Inventory and the Omnibus Personality Inventory were administered to a group of 259 junior college students enrolled in their first semester. The purpose of this study was to determine whether junior college freshmen demonstrate heterogeneity or homogeneity along certain personality dimensions. Homogeneity was found on the measure of Adaptive-Flexibility; subjects scored more in the middle range on the A-F Inventory than had populations of normally functioning adults to which the instrument had been administered in prior studies. Patterns of responses on the OPI revealed high Impulse Expression and low cognitive orientation. Standard deviations of mean scores on this instrument were lower than those attained by comparison groups.

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